

WHAT IS CLAIMED IS:

1 1. An endoscopic fluid supply conduit system suitable for use in
2 an endoscope having an insertion tube and a universal cable
3 connected to and from a manipulating head assembly, the fluid supply
4 conduit system comprising:

5 a first fluid conduit extended from said manipulating head
6 assembly and through said insertion tube toward a injection port
7 provided on a rigid tip end section at the fore distal end of said
8 insertion tube;

9 a fluid feed port provided on said manipulating head assembly in
10 communication with said first fluid conduit and arranged to permit
11 connection of a fluid feed adaptor;

12 a second fluid conduit provided internally of said universal cable
13 and communicable with said first fluid conduit within said
14 manipulating head assembly; and

15 a fluid supply channel selector means adapted to block a fluid
16 flow from said second fluid conduit to said first fluid conduit at the
17 time of feeding a fluid from said fluid feed port to said first fluid
18 conduit, while permitting a fluid flow from said second fluid conduit to

19 said first fluid conduit when said connection port is closed.

1 2. An endoscopic fluid supply conduit system as defined in claim
2 1, wherein said fluid feed port on said manipulating head assembly is
3 provided on a side away from the side to which said insertion tube is
4 connected.

1 3. An endoscopic fluid supply conduit system as defined in claim
2 1, wherein said fluid supply channel selector means includes a mouth
3 piece fixedly fitted in said fluid feed port, said mouth piece being
4 provided with an axial receptacle bore, a first connection port formed at
5 an inner axial end of said mouth piece for connecting said first fluid
6 conduit in communication with said receptacle bore, and a second
7 connection port provided at one side of said mouth piece for
8 connecting said second fluid conduit in communication with said
9 receptacle bore, said second connection port being closed when said
10 fluid supply adaptor is connected to said mouth piece, and said first
11 and second connection ports being brought into communication with
12 each other when a plug member is fitted in an outer open end of said

13 receptacle bore of said mouth piece.

1 4. An endoscopic fluid supply conduit system as defined in claim
2 3, wherein said mouth piece is arranged in such a way as to
3 disconnectibly receive said fluid feed adaptor in said receptacle bore,
4 and communicated with said first fluid conduit at an inner axial end
5 and with said second fluid conduit at a halfway position in the axial
6 direction.

1 5. An endoscopic fluid supply conduit system as defined in claim
2 4, wherein said receptacle bore of said mouth piece is provided with a
3 Luer-Lok taper portion to be brought into fitting engagement with a
4 tapered surface provided on outer periphery of said fluid feed adaptor.

1 6. An endoscopic fluid supply conduit system as defined in claim
2 5, wherein said mouth piece is provided with an external screw on
3 outer periphery thereof, while said fluid feed adaptor is provided with a
4 stopper ring on outer periphery thereof for abutting engagement with
5 outer end face of said mouth piece and fixedly fastened to said mouth

6 piece by threading a screw ring onto said external screw on the outer
7 periphery of said mouth piece.

1 7. An endoscopic fluid supply conduit system as defined in claim
2 1, wherein said fluid feed adaptor is provided with a Luer-Lok
3 mechanism to permit connection of at least one Luer-Lok syringe.

1 8. An endoscopic fluid supply conduit system as defined in claim
2 1, further comprising a lid member detachably attachable to said fluid
3 feed adaptor to close an outer open end of the latter.

1 9. An endoscopic fluid supply conduit system as defined in claim
2 1, wherein said second fluid conduit is joined with said first fluid
3 conduit at a halfway point of the latter, and said fluid supply channel
4 selector means is constituted by a check valve inserted in said second
5 fluid conduit at a junction with said first fluid conduit to prevent a
6 reverse fluid flow into said second fluid conduit from the side of said
7 first fluid conduit.

1 10. An endoscopic fluid supply conduit system as defined in
2 claim 9, wherein a junction pipe member is fixedly mounted in
3 position internally of said manipulating head assembly by a holder
4 member, said junction pipe member having a first connecting portion
5 to be joined with said first fluid conduit leading to a fluid injection port
6 on a rigid tip end section at the fore distal end of said insertion tube, a
7 second connecting portion to be joined with a fluid conduit in
8 communication with said mouth piece on said manipulating head
9 assembly, and a third connecting portion to be joined with said second
10 fluid conduit, said check valve being located within said second
11 connecting portion of said junction pipe member.

1 11. An endoscopic fluid supply conduit system as defined in
2 claim 10, wherein said fluid feed adaptor is detachably connectible to
3 said mouth piece.